

Specifications

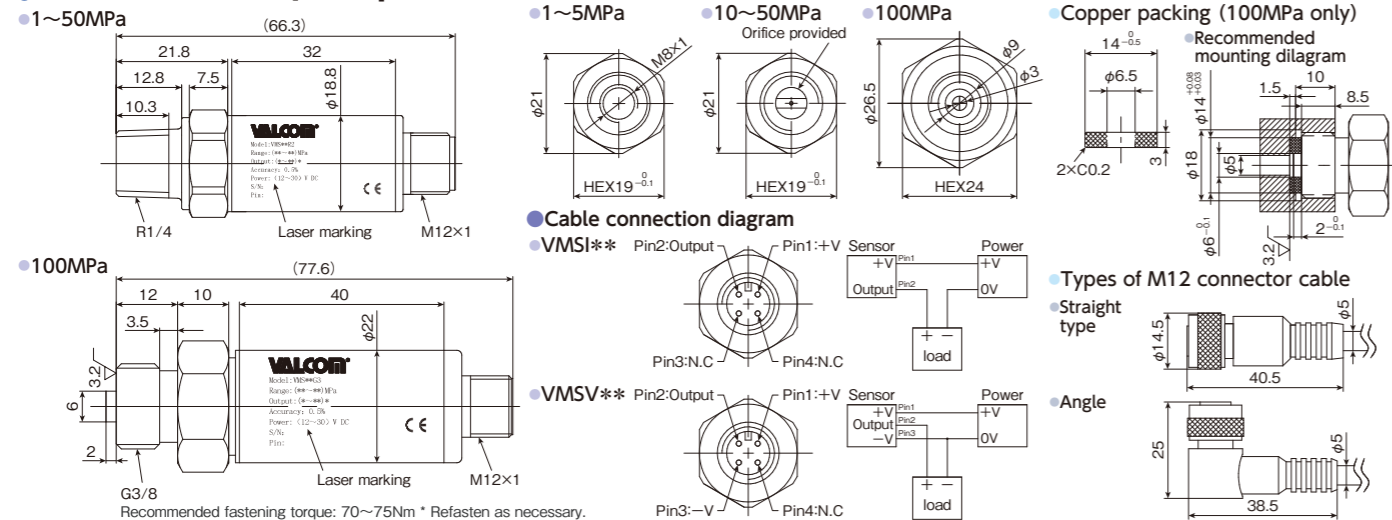
| | | | |
|-------------------------------|--|--|--|
| Pressure range | 1~100MPa | Impact resistance | 980m/s ² (11msec or less) |
| Power | VMSI : 10~30V DC VMSV : 12~30V DC | Vibration resistance | 196m/s ² (10Hz~2kHz) |
| Output | VMSI : 4~20mA VMSV : 1~5V | Protection rating | IP67 ※Only when our M12 connector cable is connected |
| Accuracy (※1) | ±0.5%F.S. (@25°C) | Materials of diaphragm/connecting thread | 17-4PH |
| Compensated temperature range | -40~120°C | Case | SUS304 |
| Operating temperature range | -40~120°C | Dielectric strength | >100MΩ (@250V DC) |
| Storage temperature range | -40~120°C | Withstand voltage | 100V AC (1 minute between all terminals and case) |
| Safe overload rating | 200% / 150% (100MPa only) | Sensor weight | 1~50MPa : 65g 100MPa : 85g ※Main body only |
| Burt overload rating | 500% / 200% (100MPa only) | CE marking | EMC directive, Europe RoHS directive conformity product |
| Stability | ±0.25%F.S./year | Safe Load Resistance | VMSI : 150Ωmax (DC11V), 500Ωmax (DC24V) VMSV : 2kΩ or more |
| Total Error Band (※2) | ±1.0%F.S. (-20~85°C), ±1.5%F.S. (-40~20°C), ±3.0%F.S. (85~120°C) | Operating current | VMSV : 5mA (MAX) |
| Response | <1.5ms | Fastening Torque: Recommended | 70~75Nm ※100MPa only |

(※1) Non Linearity/Hysteresis/Repeatability included. (※2) Non Linearity/Hysteresis/Repeatability/Temperature effect on zero balance/Temperature effect on span load included.

Model Selection

| Selection | Check | Model | Specifications |
|--------------------------|--------------------------|------------------------|--|
| ① Model | <input type="radio"/> | VMS | Pressure Transmitter |
| ② Analog output | <input type="radio"/> | I | Output type: 4~20mA, Safe load resistance: 150Ωmax (DC11V) 500Ωmax (DC24V), Consumption current: —, Power: 10~30V DC |
| | <input type="radio"/> | V | Output type: 1~5V, Safe load resistance: 2kΩ以上, Consumption current: 5mA (MAX), Power: 12~30V DC |
| ③ Calibration | <input type="radio"/> | 001 | 0~1MPa |
| | <input type="radio"/> | 002 | 0~2MPa |
| | <input type="radio"/> | 005 | 0~5MPa |
| | <input type="radio"/> | 010 | 0~10MPa |
| | <input type="radio"/> | 020 | 0~20MPa |
| | <input type="radio"/> | 035 | 0~35MPa |
| | <input type="radio"/> | 050 | 0~50MPa |
| ④ Screw | <input type="radio"/> | R2 | R1/4 ※Available only when calibration range 001~050 is selected, G3 |
| | <input type="radio"/> | G3/8 | G3/8 ※Available only when calibration range 100 is selected |
| Option (Sold separately) | <input type="checkbox"/> | NT-S00343A-2M-2S | M12 connector cable (straight type, 2 wire, for VMSI) 2m |
| | <input type="checkbox"/> | NT-S00343A-2M-3S | M12 connector cable (straight type, 3 wire, for VMSV) 2m |
| | <input type="checkbox"/> | NT-S00343A-5M-2S | M12 connector cable (straight type, 2 wire, for VMSI) 5m |
| | <input type="checkbox"/> | NT-S00343A-5M-3S | M12 connector cable (straight type, 3 wire, for VMSV) 5m |
| | <input type="checkbox"/> | Copper packing for VMS | ※Available only when calibration range 100 is selected, G3/8, 3-point measurement, 5-point measurement, Test report |

External dimensions [Unit:mm]



<https://www.valcom.co.jp/english/>

Specialized Manufacturer of Digital Pressure Meters and Load Cells

VALCOM

| | |
|---|--|
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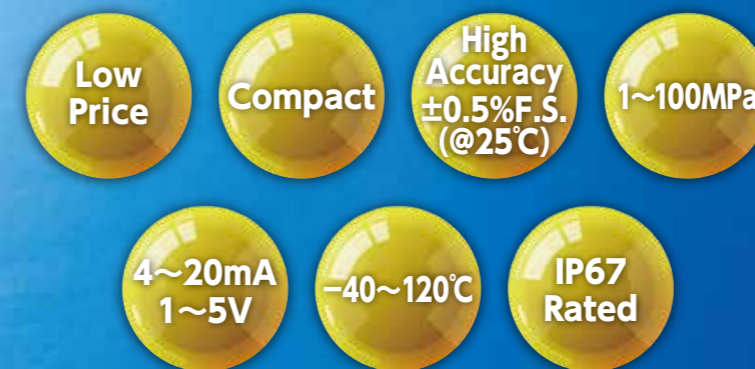
March 2025

VALCOM

A New Standard for Pressure Sensor with Built-in Amplifier

Pressure Transmitter

VMSI/VMSV series



Detailed Product Information ... https://www.valcom.co.jp/english/product/pse/vmsi_vmsv/

Compact, High-accuracy and Capable of Measuring Pressures in Various Industries and Applications under any Conditions

Pressure Sensor with Built-in Amplifier

VMSI/VMSV series

[For mass production only]
Custom-made pressure transmitter VMS series is also available.
Scan here for details.



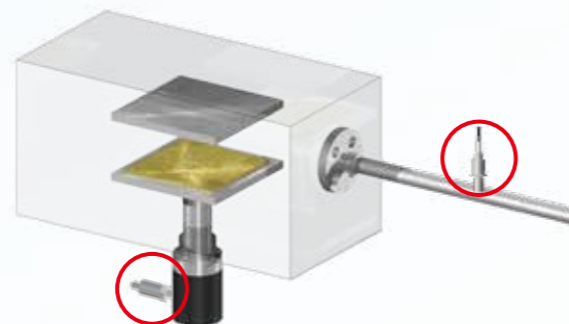
The VMSI/VMSV series pressure sensors with built-in amplifier are specialized for medium and high pressure ranges of 1 to 100 MPa. Though compact and lightweight in design, these models offer a high accuracy of $\pm 0.5\%$ F.S. (at 25°C) and can be used in the temperature range of -40 to 120°C. Moreover, they are IP67-rated, have superior vibration and shock resistance, and are suitable for many different applications.

Hydraulic press



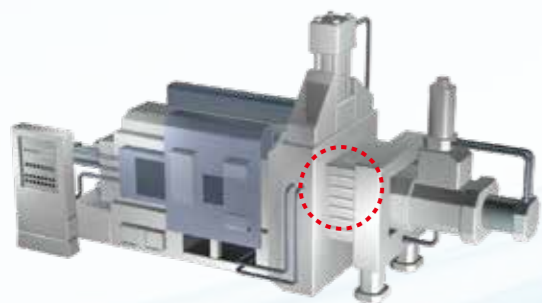
- Application**
- Hydraulic mold clamping control
 - Press load control
- Features**
- Compact and high-accuracy
 - Dustproof

Vulcanizer for tires and rubbers



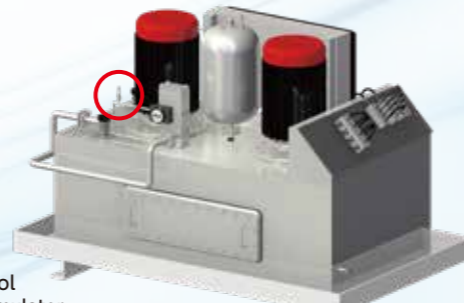
- Application**
- Hydraulic mold clamping control
 - Vapor pressure monitoring
- Features**
- Compact and high-accuracy
 - Dustproof

Die casting and injection molding machines



- Application**
- Hydraulic mold clamping control
 - Release agent application pressure control
- Features**
- Compact and high-accuracy
 - Vibration and shock-resistant

Hydraulic unit



- Application**
- Oil cooler clogging control
 - Hydraulic accumulator pressure monitoring
 - Liquid delivery pump pressure monitoring
 - Valve block operation control
- Features**
- Compact and high-accuracy
 - Supports hot range

Construction machine and specially-equipped vehicle



- Application**
- Arm / boom / bucket pressure control
 - Control valve control
 - Overload and fall prevention
- Features**
- Vibration and shock-resistant
 - Waterproof and dustproof

Crane



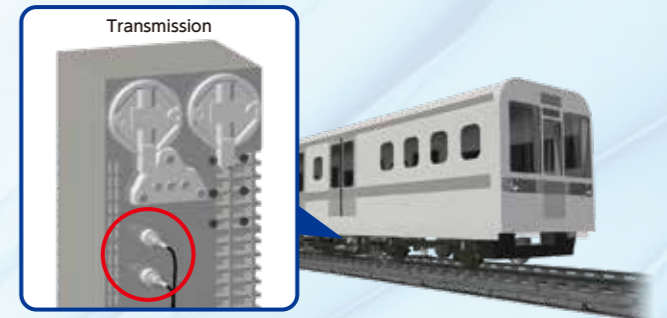
- Application**
- Boom / winch / outrigger pressure control
 - Control valve control
 - Overload and fall prevention
- Features**
- Vibration and shock-resistant
 - Waterproof and dustproof

Tailgate lifter



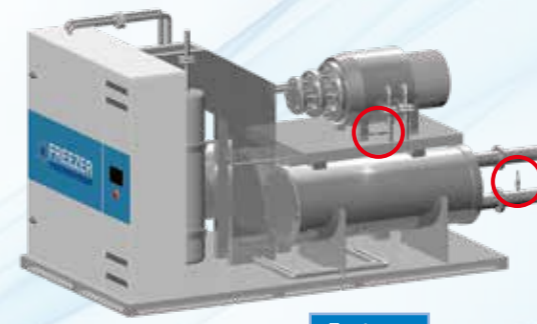
- Application**
- Hydraulic control unit control
- Features**
- Compact and high-accuracy
 - Waterproof
 - Vibration and shock-resistant

Diesel railcar



- Application**
- Transmission clutch hydraulic control
- Features**
- Compact and high-accuracy
 - Waterproof
 - Supports hot range
 - Vibration

Commercial refrigerator



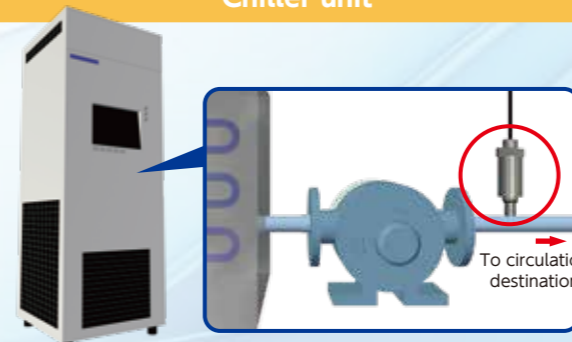
- Application**
- Refrigerant circulation pressure monitoring
- Features**
- Compact and high-accuracy
 - Supports hot and cold ranges
 - Waterproof

Autoclave



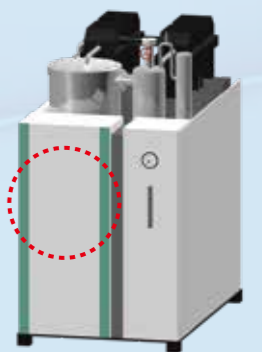
- Application**
- Hot water / chemical / steam circulation pressure monitoring
- Features**
- Compact and high-accuracy
 - Supports hot range

Chiller unit



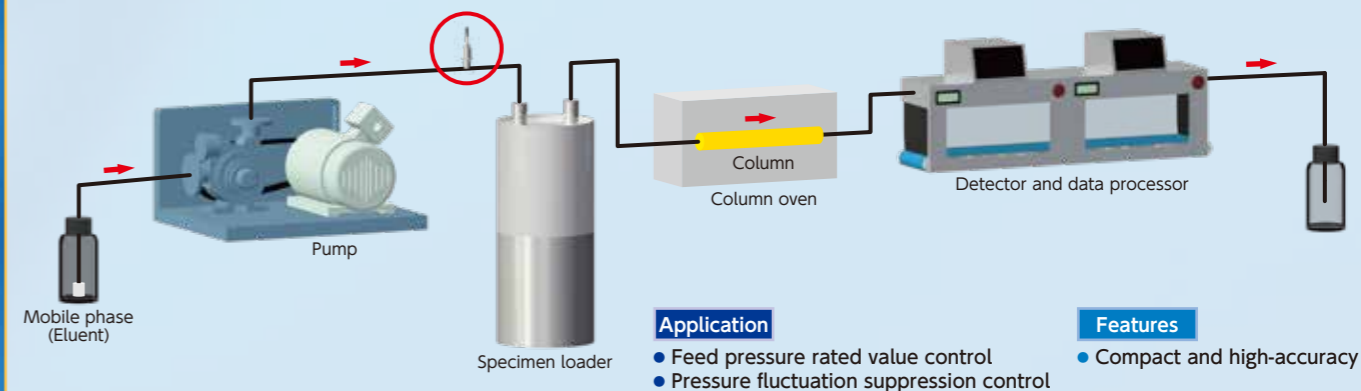
- Application**
- Circulation water pressure monitoring
 - Refrigerant circulation pressure control
- Features**
- Compact and high-accuracy
 - Waterproof

Vapor boiler



- Application**
- Vapor pressure monitoring
 - Supply water pressure monitoring
- Features**
- Compact and high-accuracy
 - Supports hot range
 - Waterproof

Chromatography / Water analysis



- Application**
- Feed pressure rated value control
 - Pressure fluctuation suppression control
- Features**
- Compact and high-accuracy